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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.         | CONFIRMATION NO.       |
|---|-------------|----------------------|-----------------------------|------------------------|
| 09/823,646  | 03/30/2001  | Indra Laksono        | 1459-VIXS002                | 8519                   |
| 29331 7590 08/07/2007<br>LARSON NEWMAN ABEL POLANSKY & WHITE, LLP<br>5914 WEST COURTYARD DRIVE<br>SUITE 200<br>AUSTIN, TX 78730 |             |                      | EXAMINER<br>CZEKAJ, DAVID J |                        |
|   |             |                      | ART UNIT<br>2621            | PAPER NUMBER           |
|   |             |                      | MAIL DATE<br>08/07/2007     | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 09/823,646             | LAKSONO, INDRA      |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Dave Czekaj            | 2621                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 June 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,7 and 9-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,7 and 9-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*


In view of the Appeal Brief filed on 3/20/07, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

  
MEHRDAD DASTOURI  
SUPERVISORY PATENT EXAMINER  
TC 2600

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 7, 9, 34, and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banks (6139197) in view of Gupta et al. (6985966), (hereinafter referred to as "Gupta") in further view of Oguz et al. (6771703), (hereinafter referred to as "Oguz").

Regarding claims 1 and 42-43, Banks discloses an apparatus that relates to digital video delivery systems (Banks: column 1, lines 7-9). This apparatus comprises "receiving a display data" (Banks: figure 2A, wherein the display data is the video), "determining if a predetermined criteria is met by a first representation of display data" (Banks: column 7, lines 35-40, wherein the predetermined criteria is the bandwidth between the server and client), and "compressing a first display stream" (Banks: column 7, lines 31-40, wherein the bandwidth is determined and the video is compressed according to the bandwidth). However, Banks fails to disclose selecting a first display stream and the streams being sent to the plurality of clients as claimed. Gupta teaches that prior art computing systems have a problem keeping streams synchronized (Gupta: column 1, lines 43-54; column 1, line 66 – column 2, line 9). To help alleviate this problem, Gupta discloses "selecting a first display stream when it is determined that the first representation of the display data does not meet the predetermined criteria" (Gupta: column 6, lines 60-67, wherein the predetermined criteria is the speed or playback designation). Oguz teaches "the first plurality of display streams is to be transmitted to a first plurality of display devices" (Oguz: figures 1-2; column 9, lines 14-25). Therefore, it would have

been obvious to one having ordinary skill in the art at the time the invention was made to take the apparatus disclosed by Banks and add the processing taught by Gupta, and add the streaming taught by Oguz in order to obtain an apparatus that operates more efficiently by keeping data sent to a client synchronized.

Regarding claim 2, Banks discloses "providing the display streams to the display devices using a common medium" (Banks: figure 1A, wherein the common medium is the decoder and processor).

Regarding claim 7, Radio Frequency is all obvious type variations of different ways to construct a network. Having these types of networks would have been obvious in order to be able to place a network in a variety of settings.

Regarding claims 9 and 34, Banks discloses "a predetermined criteria is met when it is expected that each display stream can be transmitted in manner for real time simultaneous display" (Banks: column 7, lines 35-40, wherein the criteria is the bandwidth and frame rate which enables simultaneous display on the client).

3. Claims 10-12, 15-18, 22, 49-52, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banks (6139197) in view of Gupta et al. (6985966), (hereinafter referred to as "Gupta") in further view of Oguz et al. (6771703), (hereinafter referred to as "Oguz") in further view of Bixby et al. (6792047), (hereinafter referred to as "Bixby").

Regarding claims 10-12, 49-52, and 54, note the examiners rejection for claim 1, and in addition, claims 10-12, 49-52, and 54 differ from claim 1 in that

claims 10-12, 49-52, and 54 further require matching a predicted transmission time with an actual transmission time. Bixby teaches that when transmitting an MPEG TS stream, the data must be delivered to ensure that jitter is within the PCR time limits (Bixby: column 28, lines 12-16. The examiner notes that jitter is the difference between actual and estimated transmission times. Therefore, by correcting or minimizing jitter, Bixby is making sure the actual and estimated times are correctly matched). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the jitter correction in order to provide a high quality image to the user.

Regarding claims 15-18, video, graphics, digital, and analog data are all obvious types of variations of data that can be received by the user. Being able to accommodate these types of data would have been obvious in order to be able to accommodate a variety of different needs of the user.

Regarding claim 22, Banks discloses "determining if a predetermined criteria is met when the display streams are to be transmitted using a fixed bandwidth (Banks: column 7, lines 35-40, wherein the fixed bandwidth is the specified frame rate).

4. Claims 23-26, 28, 30-32, 35-36, 39-41, 44-48, and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banks (6139197) in view of Gupta et al. (6985966), (hereinafter referred to as "Gupta") in further view of Oguz et al. (6771703), (hereinafter referred to as "Oguz") in further view of Bixby et al. (6792047), (hereinafter

referred to as "Bixby") in further view of Girod et al. (6480541), (hereinafter referred to as "Girod").

Regarding claim 23, note the examiners rejection for claim 10, and in addition, claim 23 differs from claim 10 in that claim 23 further requires the fixed bandwidth is the maximum bandwidth of the transmission medium. Girod teaches that the highest bit rate tolerable, or maximum bandwidth, the channel can tolerate will provide the best possible image quality to the user (Girod: column 7, lines 50-67 – column 8, lines 1-14, wherein the transmission medium is the channel which accepts the highest bit rate tolerable or maximum bit rate). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the maximum bandwidth transmission taught by Girod in order to provide the best possible image quality to the user.

Regarding claim 24, Girod discloses "the fixed bandwidth is a predetermined portion of the available bandwidth of the transmission medium" (Girod: column 7, lines 50-67 – column 8, lines 1-14, wherein the transmission medium is the channel, the predetermined portion is the highest bit rate tolerable by the channel).

Regarding claim 25, Girod discloses "the fixed bandwidth is the maximum bandwidth of a processing device that performs the step of compressing" (Girod: figure 2, column 7, lines 50-67 – column 8, lines 1-14, wherein the processing

devices are the coders. The examiner notes that the coders supply the video data to be transmitted at a rate maximizing efficiency of the system).

Regarding claims 26 and 28, Girod discloses "selecting the stream using a predefined selecting method and having the greatest amount of data" (Girod: column 7, lines 50-67 – column 8, lines 1-14, wherein the predefined method is selecting the stream or video that uses the highest bit rate tolerable by the channel. The examiner notes that the high bit rate streams would have the greatest amount of data).

Regarding claim 30, Banks discloses "selecting the first stream includes selecting an uncompressed stream" (Banks: column 7, lines 20-25, wherein the uncompressed stream is the uncompressed data in the storage device).

Regarding claims 31-32, Girod discloses "compressing in a first manner when its determined the first stream has not been compressed, compressing in a second manner when its determined the first stream has been previously compressed, and compressing in a third manner when its determined the first stream has been previously compressed" (Girod: figure 2, column 7, lines 41-45, wherein the video is the stream, compressing in three different bit rates indicates that a stream is compressed once and upon completion a second and third time).

Regarding claims 35-36 and 39-40, Girod discloses "the plurality of compression methods includes reducing the precision and resolution of the display stream" (Girod: column 7, lines 41-45, wherein the different bit rates and different quantization levels reduce the precision and resolution).



Regarding claim 41, Girod discloses "the stream includes MPEG data" (Girod: column 8, line 61, wherein the MPEG data is the I-frame).

Regarding claims 44, 46, and 48, Girod discloses "transmitting the streams simultaneously" (Girod: column 11, lines 60-63).

Regarding claims 45, 47, and 53 Girod discloses "a real-time transmission of each of the streams" (Girod: column 10, lines 23-25).

5. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banks (6139197) in view of Gupta et al. (6985966), (hereinafter referred to as "Gupta") in further view of Oguz et al. (6771703), (hereinafter referred to as "Oguz") in further view of Bixby et al. (6792047), (hereinafter referred to as "Bixby") in further view of Norsworthy et al (614402), (hereinafter referred to as "Norsworthy").

Regarding claim 13, note the examiners rejection for claim 1 and in addition claim 1 differs from claim 13 in that claim 13 further requires a one-to-one correspondence between display streams and display devices. Norsworthy teaches that having a one-to-one correspondence, at an increased cost to the user, can deliver better quality video (Norsworthy: column 8, lines 1-18, wherein the one-to-one correspondence is the channel set up between the provider and the customer). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the one-to-one correspondence taught by Norsworthy in order to obtain an apparatus that delivers higher quality video to a customer.

Regarding claim 14, Norsworthy discloses "there are fewer display streams than display devices, where at least one stream is shared by two or more display devices" (Norsworthy: figure 1, wherein the display devices are the computers 101a-101n which are shown to receive one stream of data from the cable plant or broadcaster).

6. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banks (6139197) in view of Gupta et al. (6985966), (hereinafter referred to as "Gupta") in further view of Oguz et al. (6771703), (hereinafter referred to as "Oguz") in further view of Bixby et al. (6792047), (hereinafter referred to as "Bixby") in further view of Keren et al (20010026591), (hereinafter referred to as "Keren").

Regarding claim 19, note the examiners rejection for claim 1 and in addition claim 19 differs from claim 1 in that claim 19 further requires display data from a plurality of sources. Keren teaches that it is well known in the cable distribution art to have a plurality of sources supply display data (Keren: paragraph 0365, lines 1-9, figure 4, wherein the plurality of sources are viewing channels, pay-per-view, telephone, audio). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the data supply taught by Keren in order to obtain an apparatus that is more robust by being able to handle a plurality of sources. One would be further motivated since it is well known in the art to do so.

Regarding claim 20, Keren discloses "receiving a portion of the display data from a stream having a plurality of multiplexed channels" (Keren: figure 4,

wherein the channels are the pay-per-view, channels, telephone, the multiplexer is the mixing box).

Regarding claim 21, Keren discloses "the digital data stream is a MPEG stream" (Keren: paragraph 0016, wherein it is digital streams are well known in the MPEG-II environment).

7. Claims 27, 29, 33, and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banks (6139197) in view of Gupta et al. (6985966), (hereinafter referred to as "Gupta") in further view of Oguz et al. (6771703), (hereinafter referred to as "Oguz") in further view of Bixby et al. (6792047), (hereinafter referred to as "Bixby") in further view of Putzolu (6584509).

Regarding claims 27 and 38, note the examiners rejection for claim 1 and in addition claims 27 and 38 differ from claim 1 in that claims 27 and 38 further requires using a round robin mode of selection. Putzolu teaches that a round robin scheme allows all classes to have equal opportunities to access the links (Putzolu: column 7, lines 1-15). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the selection method disclosed by Putzolu in order to obtain an apparatus that operates more efficiently by being able to select streams in a fair and equal manner.

Regarding claim 29, Putzolu discloses "selecting is based on prioritization of one or more of the display streams" (Putzolu: figure 3, wherein the display streams are the segments).

Regarding claim 33, Banks in view of Bixby in view of Putzolu disclose “determining if an estimated transmit time meets an actual transmit time within a desired tolerance” (Bixby: column 28, lines 12-16. The examiner notes that jitter is the difference between actual and estimated transmission times. Therefore, by correcting or minimizing jitter, Bixby is determining whether the actual and estimated times are within a tolerance), “selecting a first stream of the plurality of display streams based on a prioritization method” (Putzolu: figure 3, wherein the display streams are the segments), “selecting one of a plurality of compression methods to be applied to the first stream” (Bixby: column 32, lines 8-15, wherein the different methods are the different ways is the padding, stuffing, and insertion of frames), and “repeating each of the steps until determining indicates the actual transmit time is within the desired tolerance of the estimated time” (Bixby: column 28, lines 12-16, wherein a plurality of steps are repeated until the jitter is minimized).

Regarding claim 37, note the examiners rejection for claims 19 and 33.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave Czekaj whose telephone number is (571) 272-7327. The examiner can normally be reached on Mon-Thurs and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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